

FIG. 1A

[illegible]

Arg	Glu	Lys	Ala	Leu	Gln	Thr	Thr	Thr	Asn	Tyr	Leu	Ile	Val	Ser
GCA	GAG	AAG	GCT	TTG	CAG	ACC	ACC	ACC	AAC	TAC	TTG	ATA	GTC	AGC
70														
Leu	Ala	Val	Ala	Asp	Leu	Leu	Val	Ala	Thr	Leu	Val	Met	Pro	Trp
CTT	GCT	GTG	GCT	GAT	CTT	CTG	GTG	GCC	ACA	CTG	GTA	ATG	CCG	TGG
80														
Val	Val	Tyr	Leu	Glu	Val	Val	Gly	Glu	Trp	Lys	Phe	Ser	Arg	Ile
GTT	GTC	TAC	CTG	GAG	GTG	GTG	GGT	GAG	TGG	AAA	TTC	AGC	AGG	ATT
100														
His	Cys	Asp	Ile	Phe	Val	Thr	Leu	Asp	Val	Met	Met	Cys	Thr	Ala
CAC	TGT	GAC	ATC	TTT	GTC	ACT	CTG	GAT	GTC	ATG	ATG	TGC	ACA	GCA
110														
Ser	Ile	Leu	Asn	Leu	Cys	Ala	Ile	Ser	Ile	Asp	Arg	Tyr	Thr	Ala
AGC	ATC	CTG	AAC	CTG	TGT	GCC	ATC	AGC	ATT	GAC	AGG	TAC	ACA	GCT
130														
Val	Ala	Met	Pro	Met	Leu	Tyr	Asn	Thr	Arg	Tyr	Ser	Ser	Lys	Arg
GTG	GCA	ATG	CCC	ATG	CTG	TAT	AAC	ACA	CGC	TAC	AGC	TCC	AAG	CGC
140														
150														
450														

FIG. 1B

Arg	Val	Thr	Val	Met	Ile	Ala	Ile	Val	Trp	Val	Leu	Ser	Phe	Thr
CGA	GTT	ACT	GTC	ATG	ATT	GCC	ATT	GTC	TGG	GTC	CTG	TCC	TTC	ACC
									160					
Ile	Ser	Cys	Pro	Leu	Leu	Phe	Gly	Leu	Asn	Asn	Thr	Asp	Gln	Asn
ATC	TCC	TGC	CCA	CTG	CTC	TTC	GGA	CTC	AAC	AAT	ACA	GAC	CAG	AAT
														180
Glu	Cys	Ile	Ile	Ala	Asn	Pro	Ala	Phe	Val	Val	Tyr	Ser	Ser	Ile
GAG	TGT	ATC	ATT	GCC	AAC	CCT	GCC	TTT	GTG	GTC	TAC	TCC	TCC	ATT
									190					
Val	Ser	Phe	Tyr	Val	Pro	Phe	Ile	Val	Thr	Leu	Leu	Val	Tyr	Ile
GTC	TCA	TTC	TAC	GTG	CCC	TTC	ATC	GTC	ACT	CTG	CTG	GTC	TAT	ATC
														210
Lys	Ile	Tyr	Ile	Val	Leu	Arg	Lys	Arg	Arg	Lys	Arg	Val	Asn	Thr
AAA	ATC	TAC	ATC	GTC	CTC	CGG	AAG	CGC	CGG	AAG	CGG	GTC	AAC	ACC
									220					
Lys	Arg	Ser	Ser	Arg	Ala	Phe	Arg	Ala	Asn	Leu	Lys	Thr	Pro	Leu
AAG	CGC	AGC	AGT	CGA	GCT	TTC	AGA	GCC	AAC	CTG	AAG	ACA	CCA	CTC
														240
														720

FIG. 1C

Lys Asp Ala Ala Arg Arg Ala Gln Glu Leu Glu Met Glu Met Leu
 AAG GAT GCT GCC CGC CGA GCT CAG GAG CTG GAA ATG GAG ATG CTG 250

Ser Ser Thr Ser Pro Pro Glu Arg Thr Arg Tyr Ser Pro Ile Pro 270
 TCA AGC ACC AGC CCC CCA GAG AGG ACC CGG TAT AGC CCC ATC CCT 810

Pro Ser His His Gln Leu Thr Leu Pro Asp Pro Ser His His Gly 280
 CCC AGT CAC CAC CAG CTC ACT CTC CTC CCT GAT CCA TCC CAC CAC GGC

Leu His Ser Asn Pro Asp Ser Pro Ala Lys Pro Gly Lys Asn Gly 300
 CTA CAT AGC AAC CCT CCT GAC AGT CCT GCC GCC AAA CCA CCA GAG AAG AAT GGG 900

His Ala Lys Ile Val Asn Pro Arg Ile Ala Lys Phe Phe Glu Ile 310
 CAC GCC AAG ATT GTC AAT CCC AGG ATT GCC AAG TTC TTT GAG ATC

Gln Thr Met Pro Asn Gly Lys Thr Arg Thr Ser Leu Lys Thr Met 330
 CAG ACC ATG CCC AAT GGC AAA ACC CGG ACC TCC CTT AAG ACG ATG 990

FIG. 1D

Ser Arg Arg Lys Leu Ser Gln Gln Lys Glu Lys Lys Ala Thr Gln
 AGC CGC AGA AAG CTC TCC CAG CAG AAG GAG GAG AAA GCC ACT CAG 340

 Met Leu Ala Ile Val Leu Gly Val Phe Ile Ile Cys Trp Leu Pro 360
 ATG CTT GCC ATT GTT CTC CTC GGT GTG TTC TTC ATC ATC TGC TGG CTG CCC
 Phe Phe Ile Thr His Ile Leu Asn Ile His Cys Asp Cys Asn Ile
 TTC TTC ATC ACG CAC CAC ATC CTG AAT ATA CAC TGT GAT TGC AAC ATC 370
 1080

 Pro Pro Val Leu Tyr Ser Ala Phe Thr Trp Leu Gly Tyr Val Asn 390
 CCA CCA GTC CTC TAC TAC AGC GCC TTC ACA TGG TGG CTG GGC TAT GTC AAC
 Ser Ala Val Asn Pro Ile Ile Tyr Thr Thr Phe Asn Ile Glu Phe 400
 AGT GCC GTC AAC AAC CCC ATC ATC ATC TAC ACC ACC ACC TTC AAC ATC GAG TTC
 Arg Lys Ala Phe Met Lys Ile Leu His Cys 415
 CGC AAG GCC TTC ATG AAG ATC TTG CAC TGC TGAGCTGCCCCCTTGCCTG
 1264

FIG. 1E

CACAGCAGCTGCTTCCACCTCCCTGCCCTATGCAGGCCAGACCTCATCCCTGCAAGCTG
TGGGCAGAAAGGCCCAGATGAACCTTGGCCTTCTCTCGACCCCTGCAGGCCCTGCAGTGTTA
1383
GCTTGGCTCGATGCCCCCTCTCTGCCCCACACACCCCTCATCCTGCCAGGGTAGGGCCAGGG
AGACTGGTATCTTACCAGCTCTGGGGTTGGACCCCATGGCTCAGGGCAGCTCACAGAGTGTC
1502
CCCTCTCATATCCAGACCCCTGTCTCCTTGGCACCAAGATGCAGCGGCCTTCCTTGACC
TTCCTCTTGGGCACAGAAACTAGCTCAGTGGTCGAGCACACCCCTGATCGCTGGCTTGGCC
1621
TGGCCCTTGCTTGCCCTGTGCCGGATCAGGTGGTGGGAGGGAGCGACACGTTCTTACTTT
ATAGGAACCACATAGGAAAGCAGGGAACACGCCAAGTCCTCCAGGCACATCAGTGTCAAG
1740
AGACACACATAAACACCCAGGTAGCTCCATGGACCCCAGAGAAACTGAGGCTGAAAAATC
TGTTTCCACTCCAACTCTAGTGTGAGTCCCTACTTTTCATAGCCATGGGTATTACTATG
1859

FIG. 1F

TCCTACCTTGTTATAGTATCCCATGGGGTTTCTGTACCATTTGGGGGAAACAACACTCTA
ATCCTCAAGGGCCCCAAGAGAATCTGTAAAGAGAAAAATAGGCTGATCTCCCTCTACTCT
1978
CCAATCCACTCCACCACTTCTTGATATACCTTGGATGTATCCATTCCCTCACAGCAAAATG
CTGGCCAGTCAGGCCCTTGGACCAGTGTGGAGTTGAAGCTGGATGTGGTAACTTGGGGCT
2097
CTTTGGGCTGGGGGTTGTTAAACATCGTCTCTCTTCCATATCTCTTCCCTTCCCAGTG
CCTCTGCCTTAGAAGAGGCTGTGGATGGGGTGCTGGGACTGCTGATACCATTTGGGCCCTGG
2216
CCCTGAATGAGGAGGGGAAGCTGCAGTTTGGAGGGTTCTGGGATCCAACCTCTGTAAACAT
CACTATACCTGTACCAAAACTAATAAAACCTTGACAAGAGTCAAAAAAAAAA
2317

FIG. 1G

D₆
β₆
α₆
G-21
M₁
SK

MD... [FL... NISWYDDDLERQNSRPFNGSEKADRPYNYAM] [IILL] IFII [VFGNVLVCM] AVSREKALQTHINY
MGP... [P... GNDSDFLTTNGSHV... PDHDTVTEERDEAWVGM] [IMSVIVLAVFGNVLVITAI] AKFERLOQTINY
MGSQ... [PQA... GNASNGTEAPG... GGARTTPYSLOQT... LTLVCLAGLI] MLLTVFGNVLVIIAVFTSRATKAPQNL
MDVLS [PGQ... QNNTTSPAPPE... TGGNTTGISDVTVSYQV... ITSII] [GTL] IFCAV [TGNAGVVA] IALERSLQNVANY
MNTSAPPVSPNITVLAP... GKGPPQVA... FIGITITGLL SLATV [TGNIL] VIIISFKVNTETKIVNYY
MGACV VMTDIN [IS]... SGLDSNATGITAFSMPGWQLALWTAAYLAL VLVAVMGNAT [VI] IIAHQRMR [IV] TNY

D₆
β₆
α₆
G-21
M₁
SK

LIVSLAMADII [UATLV] [P] WVYLE [V] GEMKFSRIHCDIFVTL [DVM] CTASILNLC [AIS] QRYTA [VAM] PMTRYSSKRR
FUDSLACADI [VMGIA] [V] PFGASHIIMK [M] NFGNFWCEFWTSIQVLCVITASIE [TLC] VIAVORYIAITS [EFKYQ] SLLTKNKA
FIVSLASADII [UATLV] [P] FFSLANE [M] QYMEGK [TW] CEIYALDVLCTSSIVHLCAISIQRYWSITQAIENLNKRTPRRI
L [G] SLAVTD [IM] SVLV [V] IEMAAALYQMLNN [W] TLGQVTC [DL] FIALDLOCTSSILHLCAIAIQRYMAITD [PI] DYVNRKTRPR
FLLSLACADII [IG] FFSMNLYT [TY] LLM [Q] T [W] ALGTLAC [DL] WLALDYVASNA [SV] MNL [L] IIS [F] QRYFSVTRPLSYRAKTRPRRA
FIVNLAADI [CM] AAFNAAFNFVYASHN [IM] Y [F] GRAFCYQNLFPITAMFV [S] YSMTAIAAQRYMAIVRE [F] QPRLSAPGTR

D₆
β₆
α₆
G-21
M₁
SK

VTVM [IA] [V] WV [IS] [ET] [SC] [P] LLFGLNNTD... QNECIANPAFVVYSS [IM] SFYV [P] FIVTLVYIK [IV] VLKRRKRVNTKR-- (111)
RMV [IL] MVW [IV] SGL [TS] FIP [I] QMHWYRATH... QKAIDCYHRETCDDFTNQAYAI [M] SSVSV [F] V [P] MVFVYSRVQVAKRQLQKI-- (32)
KAI [IT] VW [IV] SAV [IS] FHP [L] ISIEKKGG... GGPQPAEPRCEINDQKWYV [H] SSCI [GS] FFAPOHIMILVYVRIYQIAKRRTRVP-- (137)
ALT [SLT] [ML] I [G] FL [LS] I [P] MLGWRTPEDR... SDPDACTISKDMGYT [V] YSTFGA [FY] I [P] L [ML] VLYGRIFRAARFRI [P] T-- (110)
ALM [TGL] AMLVSEVLWA [P] AILFWQYLVGE... RTVLACQCYIQFLSQPIITFGTAMAA [FY] LPV [M] CTIYMWRIYRETERAREL-- (137)
[AV] [I] AG [ML] VALALAF [P] QCFSYSTITTDEGATKCVVAWPEDSGGKMLLLYHL [IV] VIALI [YE] LP [V] V [M] FVAY [SV] IGLTLW [P] RSVPG-- (12)

D₆
β₆
α₆
G-21
M₁
SK

-KEKKATQMT [AI] [V] I [G] MF [II] CWLPFF [I] TH [I] NIH [CO] CN... IPPVL [Y] SAFT [W] LGYVNSA... VNP [IT] YT [IE] N [IE] FRNA [F] MK [II] HC
-KEKKALKTD [GI] M [G] IFT [LC] WLPFF [IV] N [V] HVIQDNL... IPKEV [Y] ILLNWL [G] YVNSA... PNPI [I] YCRSP [DF] RIA [F] Q [E] IL [CL] -- (36)
-REKRTFVIA [V] IAG [M] FV [C] WEPFF [E] TY [T] AVGCS... VPR [IT] FKF [F] P [G] YCNSS... INP [VI] YTL [F] N [H] D [F] R [A] F [K] I [I] CRC-- (6)
-REKRTVKT [I] Q [I] M [G] IFT [LC] WLPFF [IV] N [V] HVIQDNL... HMP [IT] I [G] A [I] N [W] L [G] YNSL... INP [VI] YAYEN [K] D [F] Q [N] A [F] K [I] K [C] N [F] C [R] Q
-KEKKAARTLSA [I] LAF [IV] T [M] [Y] N [V] M [V] L [V] STFC [K] DC... V [E] ET [W] ELG [Y] M [I] G [Y] N [ST]... INP [M] C [M] A [L] Q [N] K [A] F [R] D [T] F [R] L [I] L [H] C [R] -- (24)
-ANKKFVKT [M] V [IV] V [T] F [AI] C [W] L [P] YHL [Y] F [I] GTFQED [I] YCHK [F] I [Q] V [V] L [P] W [IA]... MS [ST] MYN [P] I [Y] CC [IN] H [R] F [S] Q [E] R [L] A [P] R [C] C-- (62)

FIG. 2

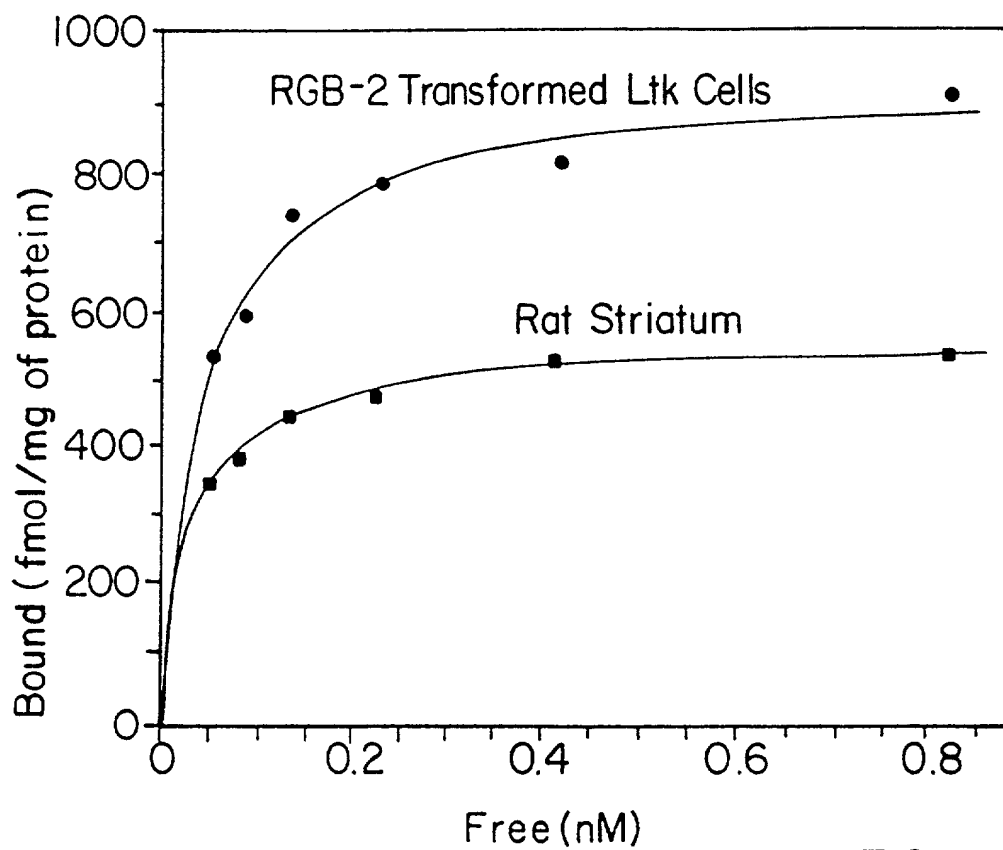


FIG.4A-1

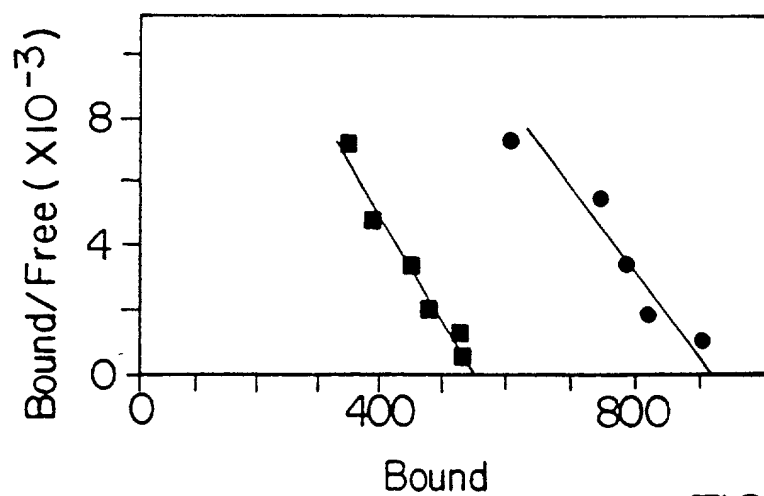
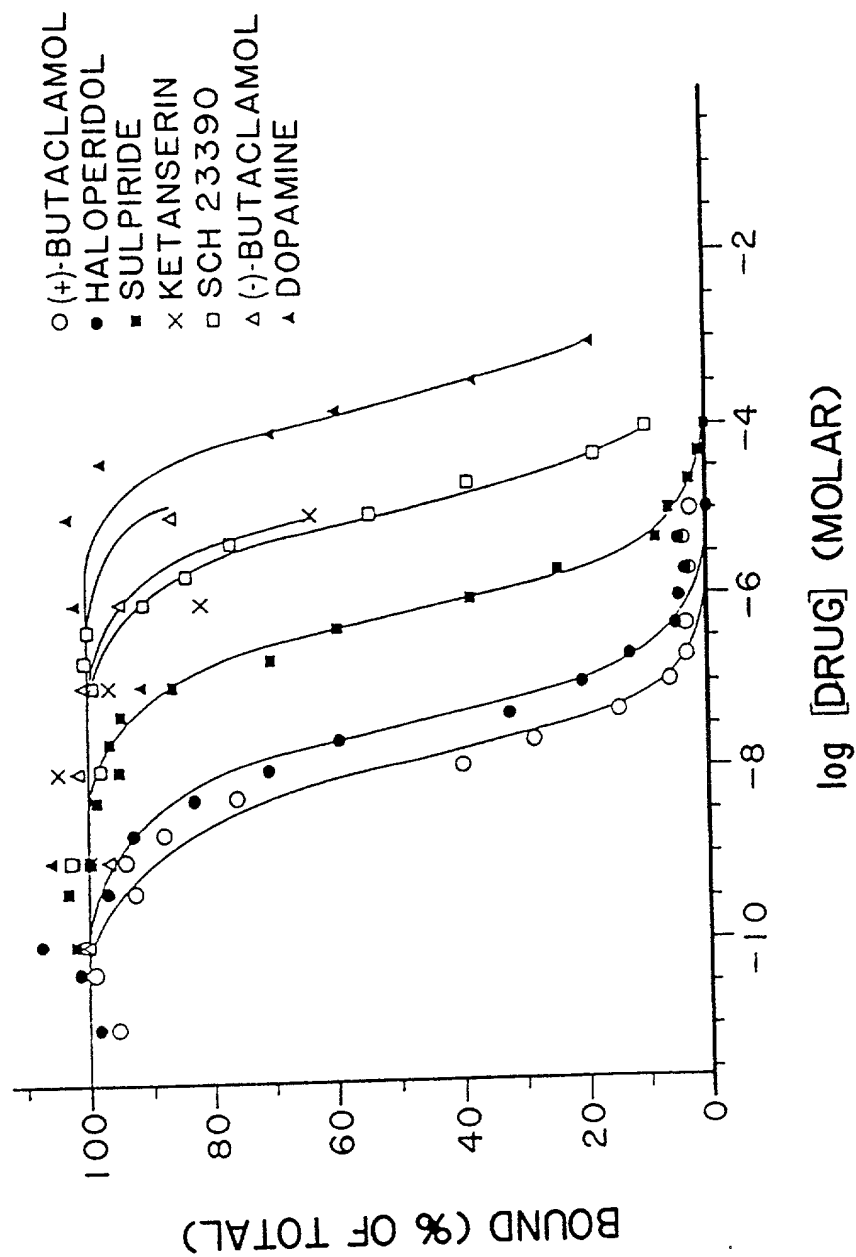


FIG.4A-2

FIG. 4B



DRUG		Ki (nM)	
RGB-2			
	<u>Transformed Ltk-Cells</u>	<u>Rat Striatum</u>	
(+)-Butaclamol	0.83	1.0	
(-)-Butaclamol	>1,000	>1,000	
Haloperidol	3.0	5.3	
Dopamine + GTP	17,000	6,300	
Sulpiride			
high affinity	80	67	(87%)
low affinity	---	>10,000	(13%)
SCH 23390			
high affinity	---	35	(16%)
low affinity	1,000	780	(84%)
Ketanserin			
high affinity	---	27	(25%)
low affinity	>1,000	>1,000	(75%)

FIG. 4C

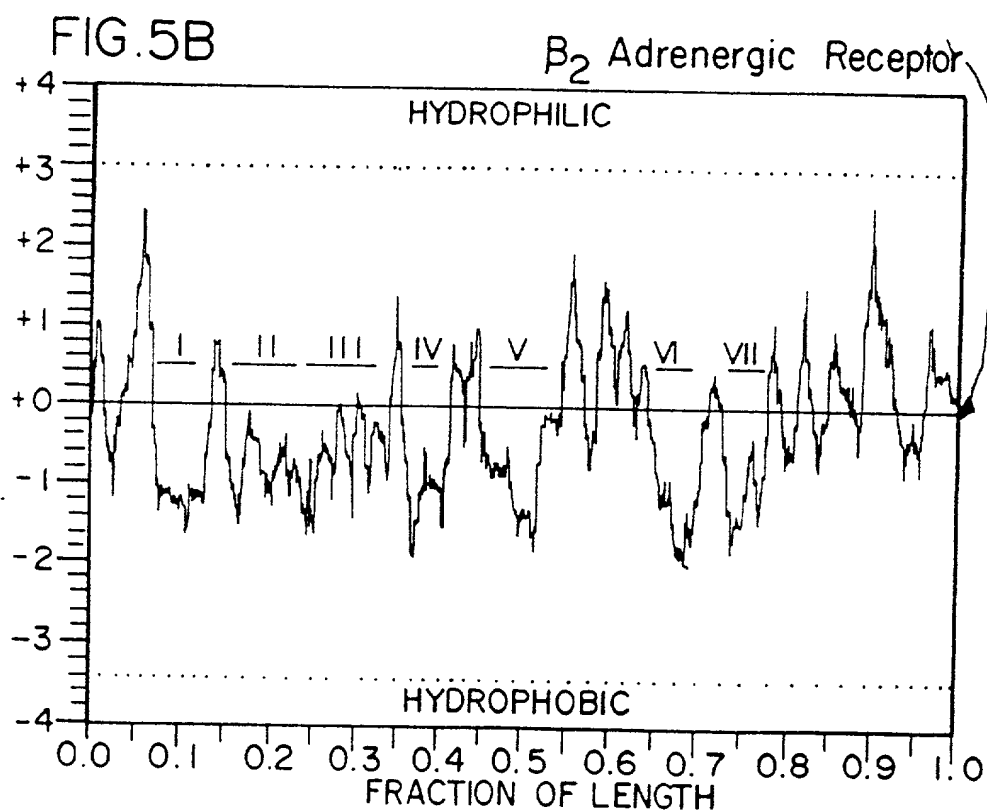
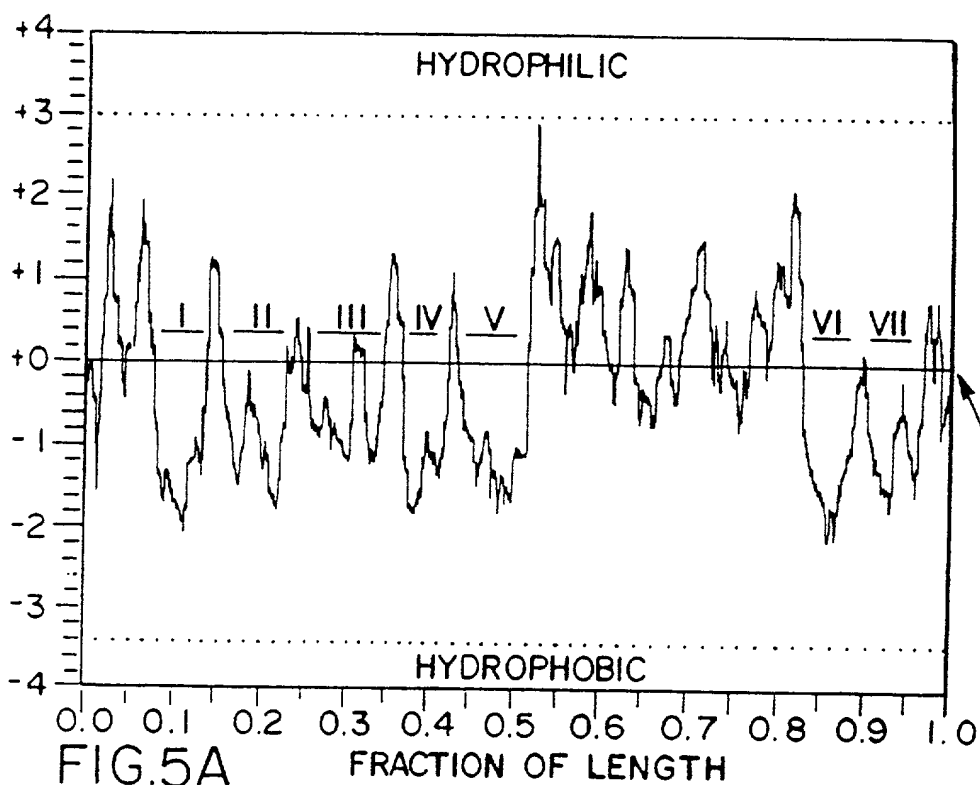
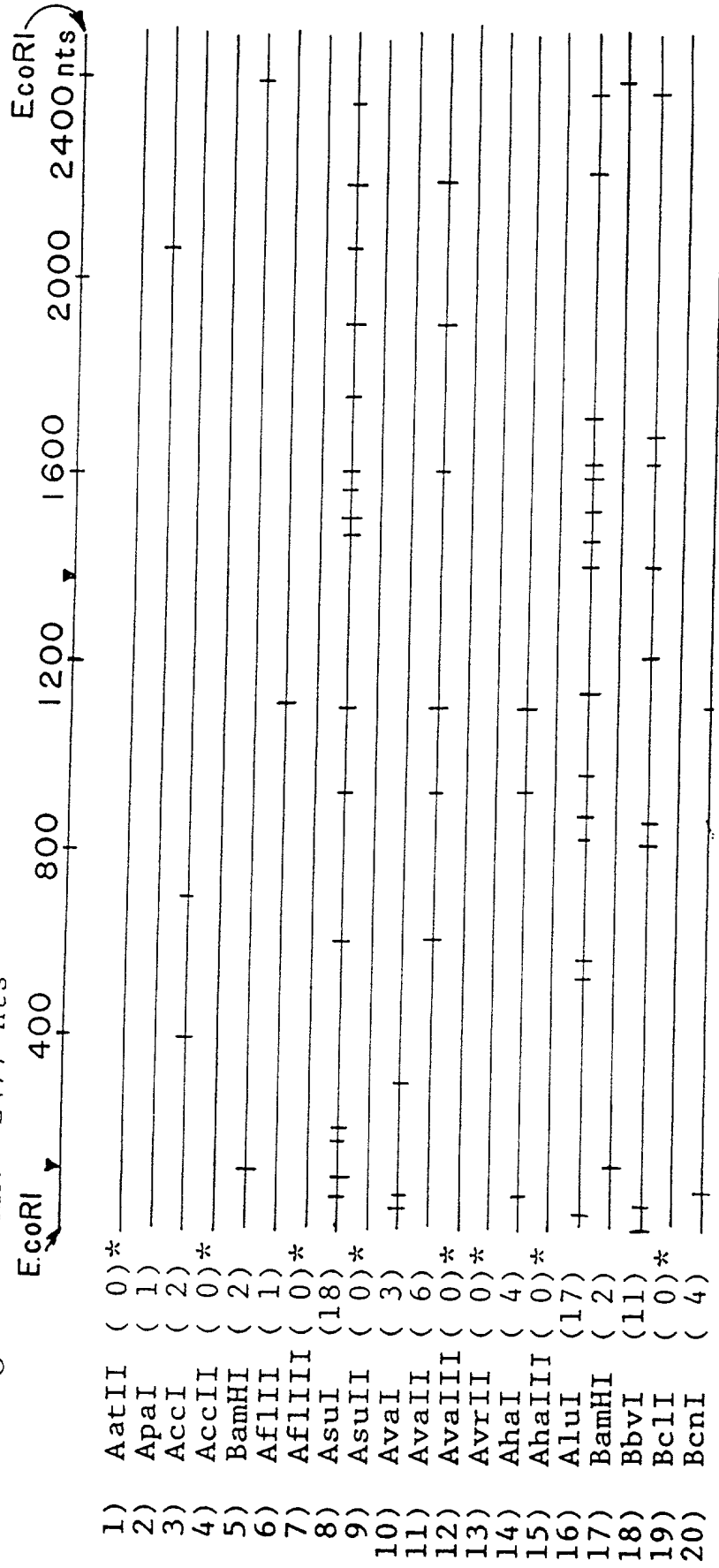


FIG. 6A

Length of DNA: 2477 nts



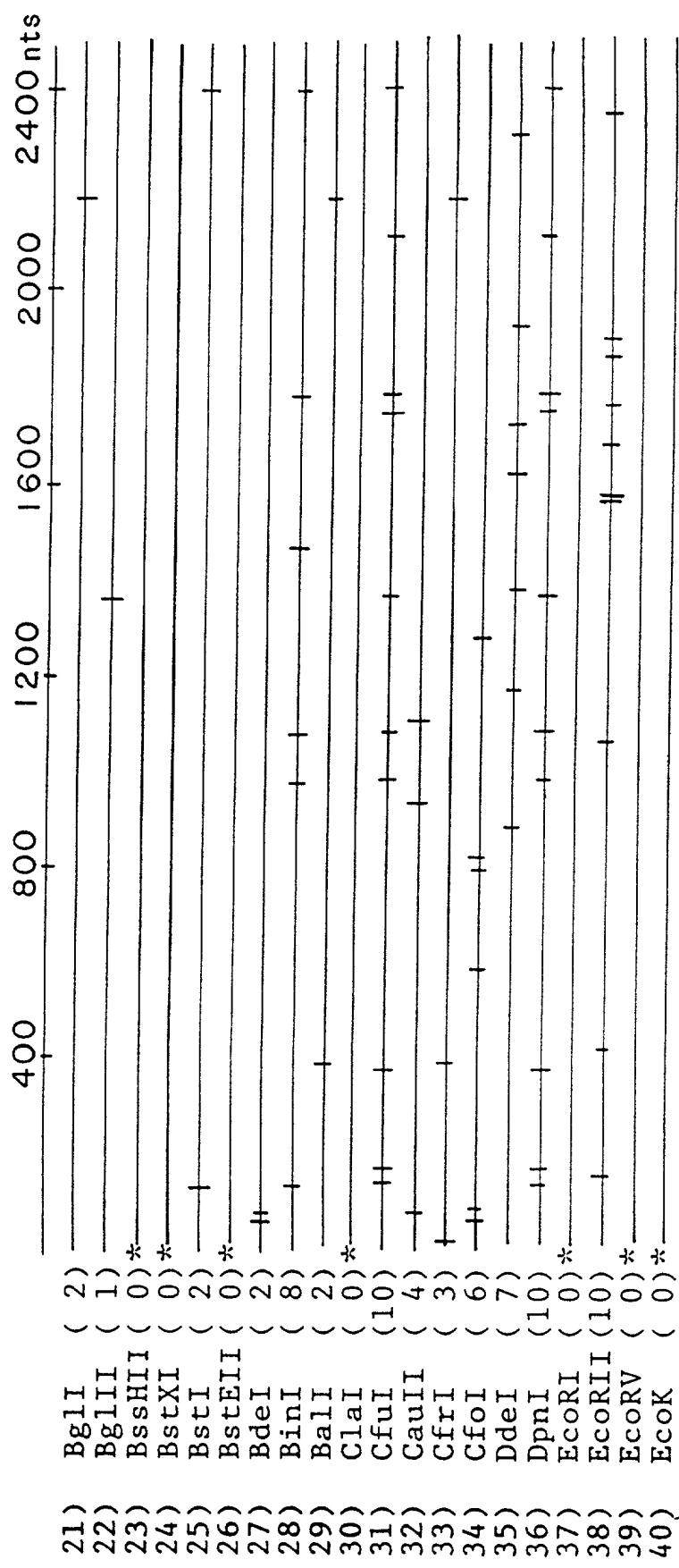


FIG. 6B

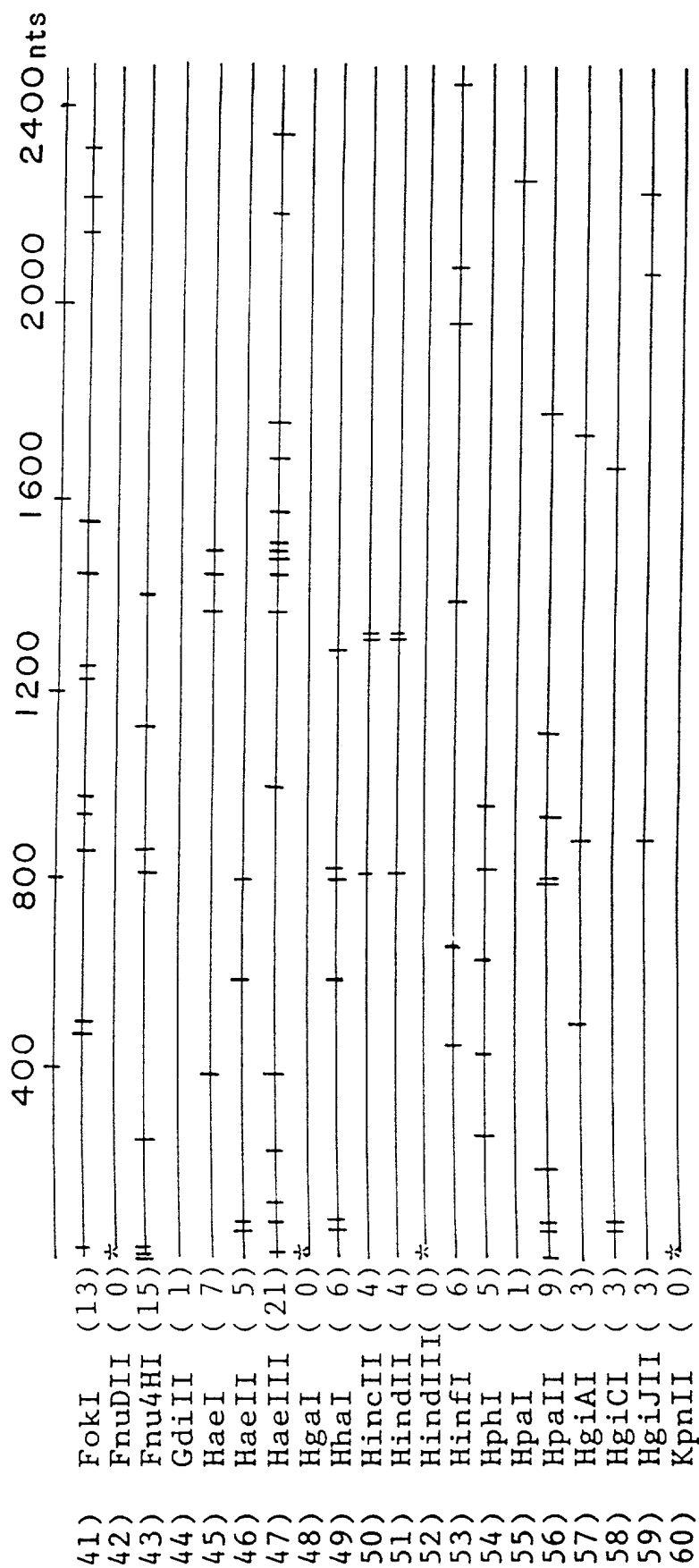


FIG. 6C

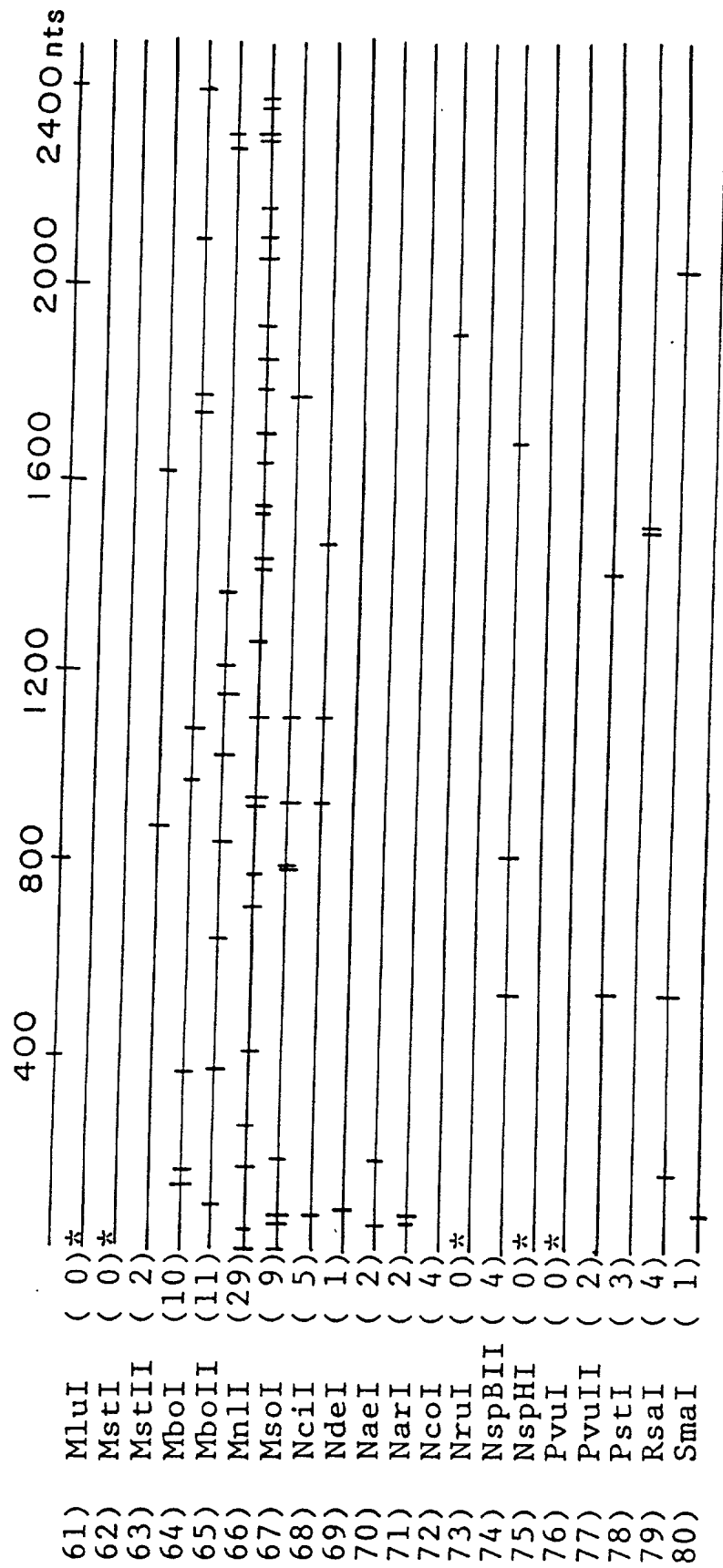


FIG. 6D

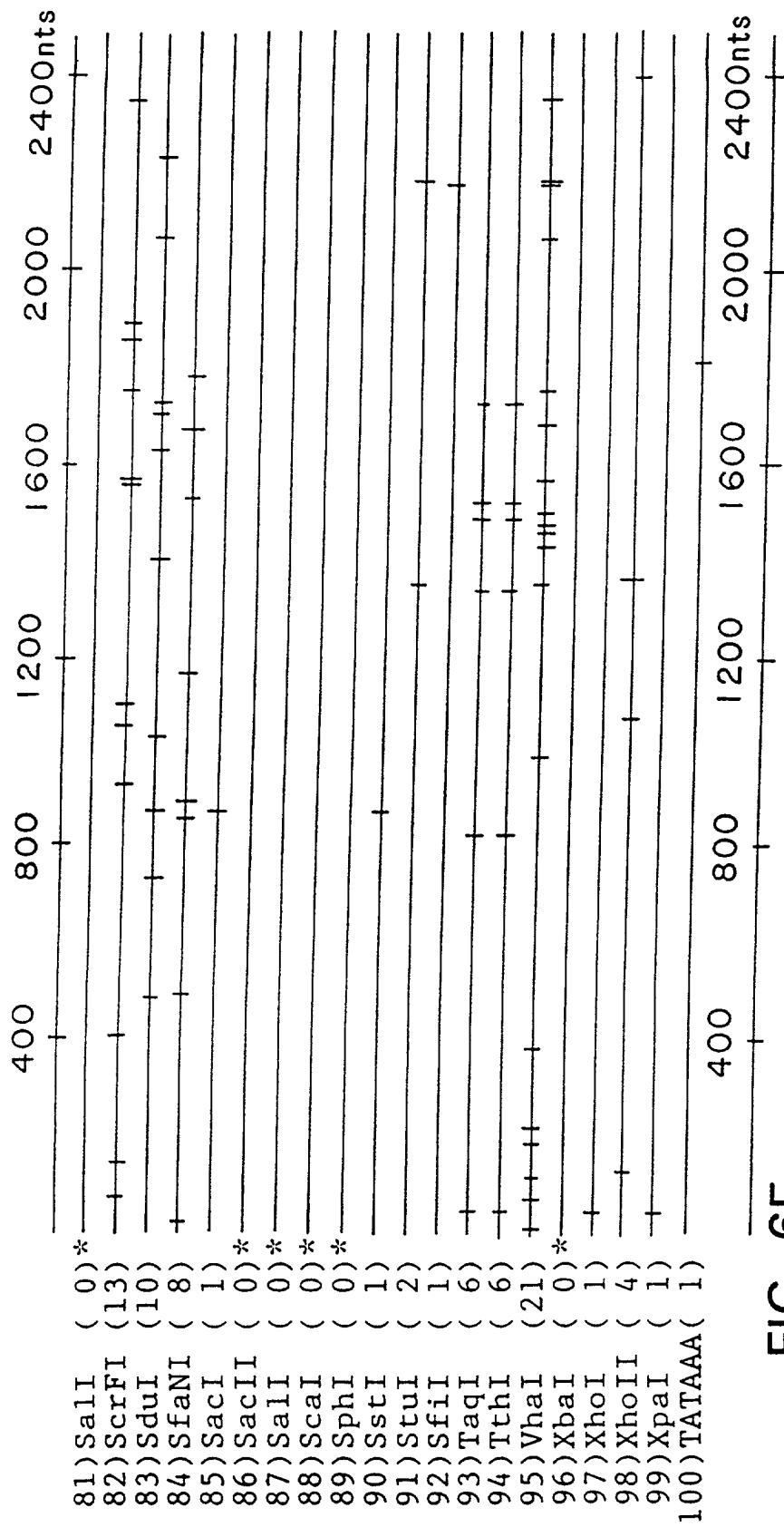


FIG. 6E

FIG. 7A

3' GTC GGG TGG GCT CTC CTG GGC CAT GTC GGG GTA GGG TGG GTC GGT GGT CGA 5'
 5' CAG CCC ACC CGA GAG GAC CCG GTA CAG CCC CAT CCC ACC CAG CCA CCA GCT 3',
 Gln Pro Thr Arg Glu Asp Pro Val Gln Pro His Pro Thr Gln Pro Pro Pro Ala
 Ser Pro Pro Glu Arg Thr Arg Tyr Ser Pro Ile Pro Pro Ser His His Gln Leu
 Ala His Pro Arg Gly Pro Gly Thr Ala Pro Ser His Pro Ala Thr Thr Ser

81
 CTG AGA GGG GCT GGG CAG CAG GGT GGT ACC AGA GGT GTC GTG AGG GCT GTC GGG GCG
 GAC TCT CCC CGA CCC GTC CCA CCA TGG TCT CCA CAG CAC TCC CGA CAG CCC CGC
 Asp Ser Pro Arg Pro Val Pro Pro Trp Ser Pro Gln His Ser Arg Gln Pro Arg
 Thr Leu Pro Asp Pro Ser His His Gly Leu His Ser Thr Pro Asp Ser Pro Ala
 Leu Ser Pro Thr Arg Pro Thr MET Val Ser Thr Ala Leu Pro Thr Ala Pro Pro

135
 GTT TGG TCT CTT CTT ACC CGT ACG GTT TTC CTG GTG GGG TTC CTA ACG GTT CTA
 CAA ACC AGA GAA GAA TGG GCA TGC CAA AAG GAC CAC CCC AAG GAT TGC CAA GAT
 Gln Thr Arg Glu Glu Trp Ala Cys Gln Lys Asp His Pro Lys Asp Cys Gln Asp
 Lys Pro Glu Lys Asn Gly His Ala Lys Arg Thr Thr Pro Arg Ile Ala Lys Ile
 Asn Gln Arg Arg MET Gly MET Pro Lys Gly Pro Pro Gln Gly Leu Pro Arg Ser

189
 GAA ACT CTA GGT CTG CTG GTA CCG GTT ACC GTT TTG GGC CTG GAG GGA GTT CTG GTA
 CTT TGA GAT CCA GAC CAT GCC CAA TGG CAA AAC CCG GAC CTC CCT CAA GAC CAT
 Leu . Asp Pro Asp His Ala Gln Trp Gln Asn Pro Asp Leu Pro Gln Asp His
 Phe Glu Ile Gln Thr MET Pro Asn Gly Lys Thr Arg Thr Ser Leu Lys Thr MET

FIG. 7B

CTC GGC ATC CTT C6A G55 GGT CGT CTT CCT CTT TCG GTG AGT CTA CGA GCG	243	270
GAG CCG TAG GAA G3T C44 CCA GCA GAA GGA GAA AGC CAC TCA GAT GCT CGC		
Glu Pro . Glu C TT Pro Ala Glu Gly Glu Lys Lys Ala Thr Gln MET Leu Ala		
Ser Arg Arg Lys Leu Phe Ser Arg Arg Arg Lys Pro Leu Arg Cys Ser Pro		
Ala Val Gly		
GTA 5CA AGA GCC GCA CAA GTA GTA GAC CGA CGG GAA GAA GTA GTG TGT GTA	297	324
CAT 4GT TCT CGG CGT GTT CAT CAT CTG CTG GCT GCC CTT CTT CAT CAC ACA CAT		
His T Ser Arg Arg Val His Leu Leu Ala Ala Leu Leu His His Thr His		
ILE Val Leu Gly Val Phe Ile Ile Cys Trp Leu Pro Phe Phe Ile Thr His Ile		
le Phe Ser Ala Cys Ser Ser Ser Ala Gly Cys Pro Ser Ser His Thr Ser		
GGA CTT GTA TGT GAC ACT GAC GTT GTA GGG CGG ACA GGA CAT GTC GCG GAA GTG	351	378
CCT GAA CAT ACA CTG TGA CTG CAA CAT CCC GCC TGT CCT GTA CAG CGC CTT CAC		
Pro Glu His Thr Leu . Leu Gln His Pro Ala Cys Pro Val Gln Arg Leu His		
Leu Asn Ile His Cys Asp Cys Asn Ile Pro Pro Val Leu Tyr Ser Ala Phe Thr		
. Thr Tyr Thr Val Thr Ala Thr Ser Arg Leu Ser Cys Thr Ala Pro Ser Arg		
CAC CGA CCC GAT ACA GTT GTC GCG GCA CTT GGG GTA GTA GAT GTG GTG GAA GTT	405	432
GTG GCT GGG CTA TGT CAA CAG CGC CGT GAA CCC CAT CAT CTA CAC CAC CTT CAA		
Val Ala Gly Leu Cys Gln Gln Arg Arg Glu Pro His His Leu His His Leu Gln		
Trp Leu Gly Tyr Val Asn Ser Ala Val Asn Pro Ile Ile Tyr Thr Thr Phe Asn		
Gly Trp Ala MET Ser Thr Thr Ala Pro . Thr Pro Ser Ser Thr Pro Pro Ser Thr		

459 GTA ACT CAA GGC GTT CCG GAA GGA CTT CTA GGA GGT GAC GAC TGA GAC GAC GGA 486
 CAT TGA GTT CCG CAA GGC CTT CCT GAA GAT CCT CCA CTG ACT CTG CTG CCT
 His . Val Pro Gln Gly Leu Pro Glu Asp Pro Pro Leu Thr Leu Leu Pro
 Ile Glu Phe Arg Lys Ala Phe Leu Lys Ile Leu His Cys STOPLeu Cys Cys Leu
 Leu Ser Ser Ala Arg Pro Ser . Arg Ser Ser Thr Ala Asp Ser Ala Ala Cys

 513 CGG CGT GTC GGA CGA AGG GTG CAG GGA CGG GTC ACG GCC GGT CGG AGT GGG 540
 GCC GCA CAG CAG CCT GCT TCC CAC CTC CCT GCC CAG TGC CGG CCA GCC TCA CCC
 Ala Ala Gln Gln Pro Ala Ser His Leu Pro Ala Gln Cys Arg Pro Ala Ser Pro
 Pro His Ser Ser Leu Leu Pro Thr Ser Leu Pro Ser Ala Gly Gln Pro His Pro
 Arg Thr Ala Ala Cys Phe Pro Pro Cys Pro Val Pro Ala Ser Leu Thr Leu

 567 AAC GCT TGG CAC TCG TCC TTC CCG ACC CAC CTA GCC GGA GGA GAA GAT CGG GGC 594
 TTG CGA ACC GTG AGC AGG AAG GCC TGG GTG GAT CGG CCT CCT CTT CTA GCC CCG
 Leu Arg Thr Val Ser Arg Lys Ala Trp Val Asp Arg Pro Pro Leu Leu Ala Pro
 Cys Glu Pro . Ala Gly Arg Pro Gly Trp Ile Gly Leu Leu Phe . Pro Arg
 Ala Asn Arg Glu Gln Glu Gly Leu Gly Ser Ala Ser Ser Ser Ser Pro Gly

FIG. 7C

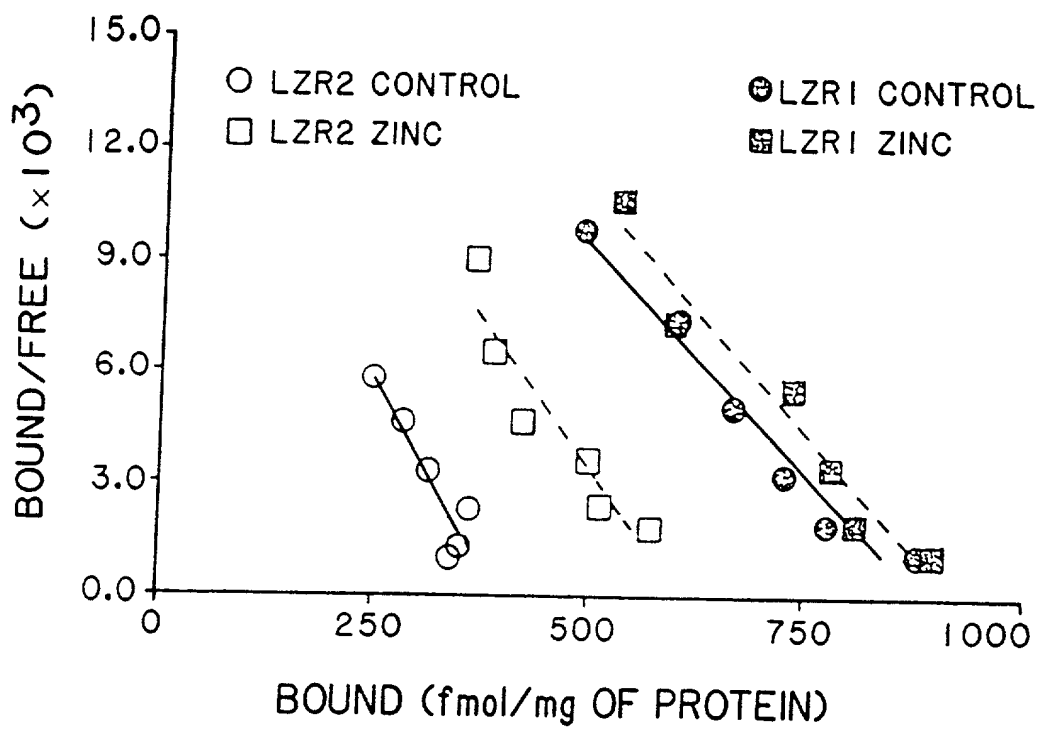


FIG. 8

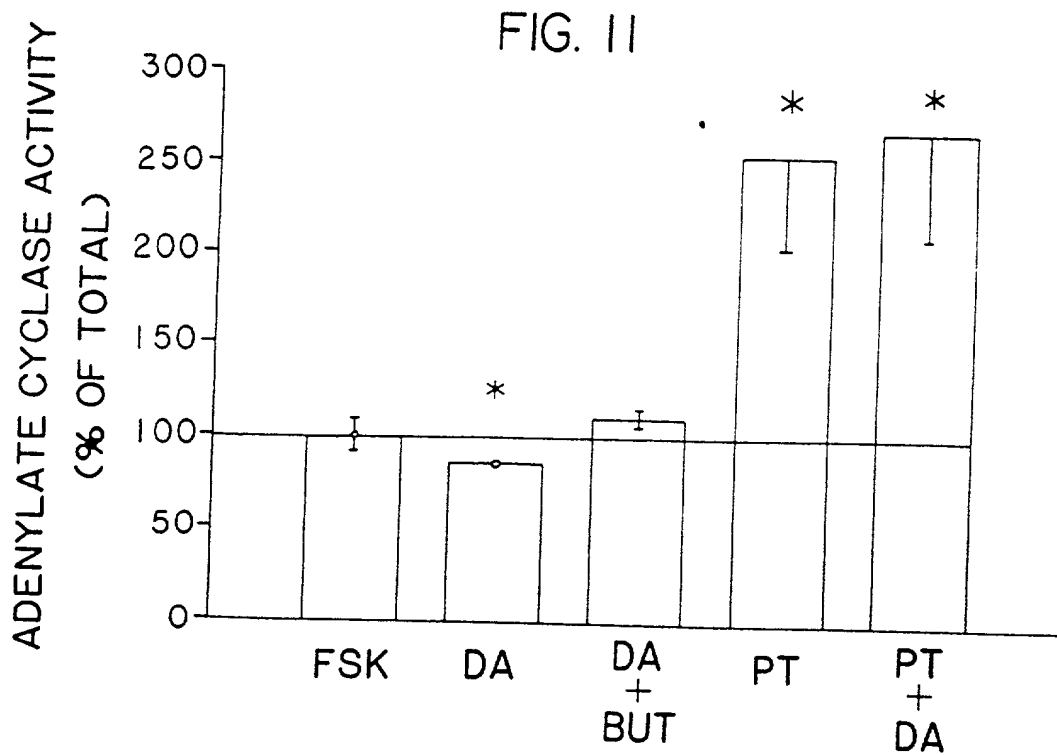


FIG. 9A

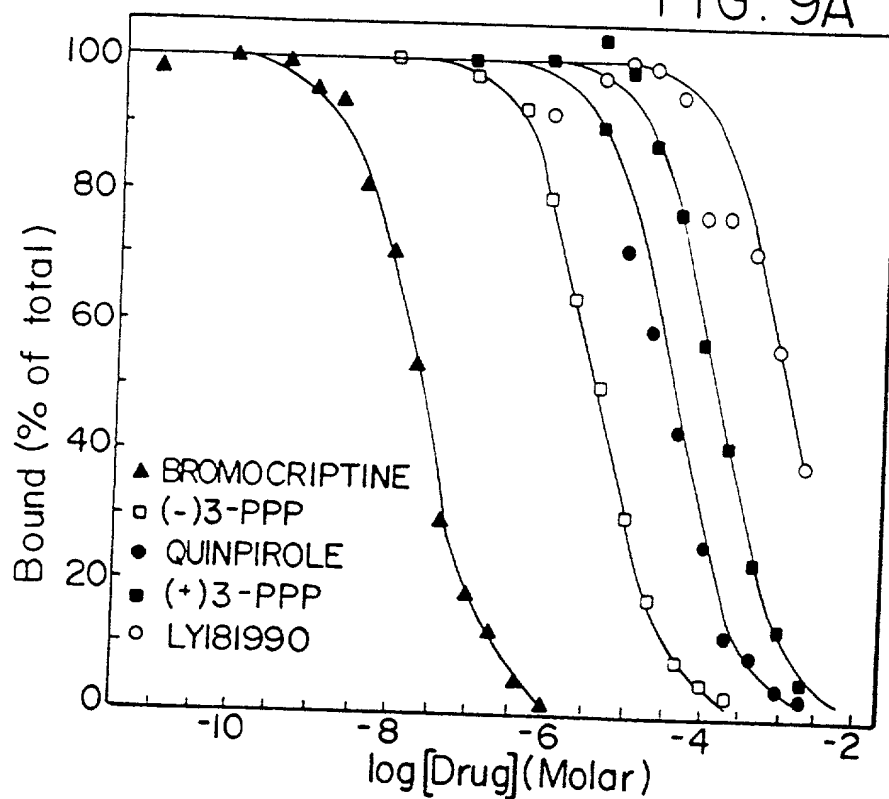
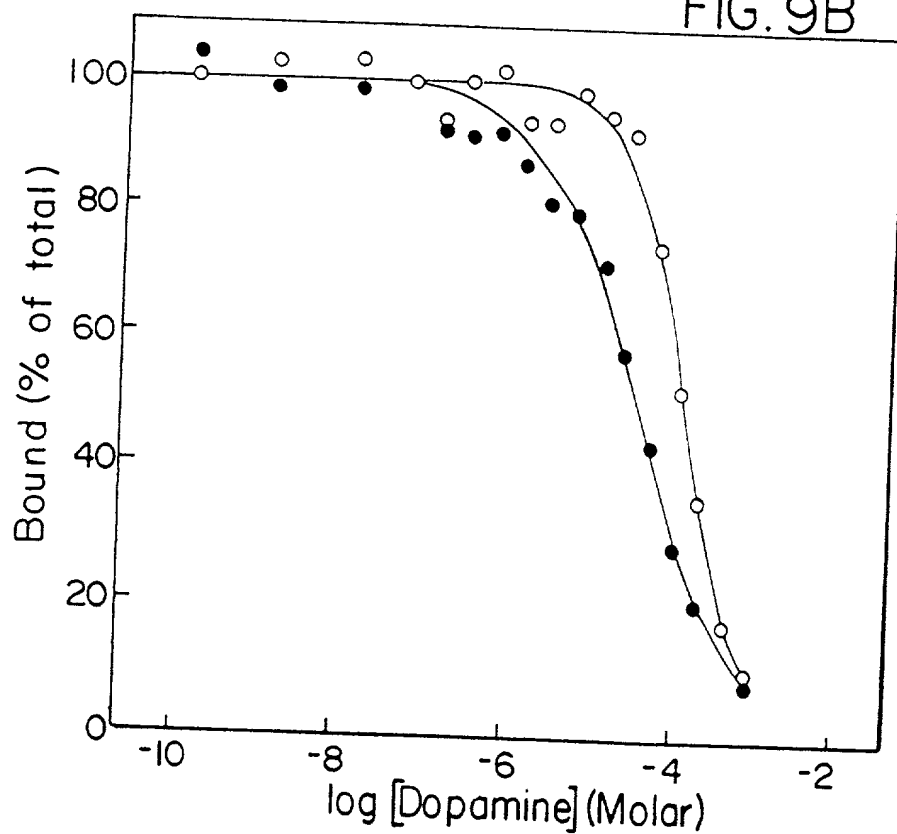


FIG. 9B



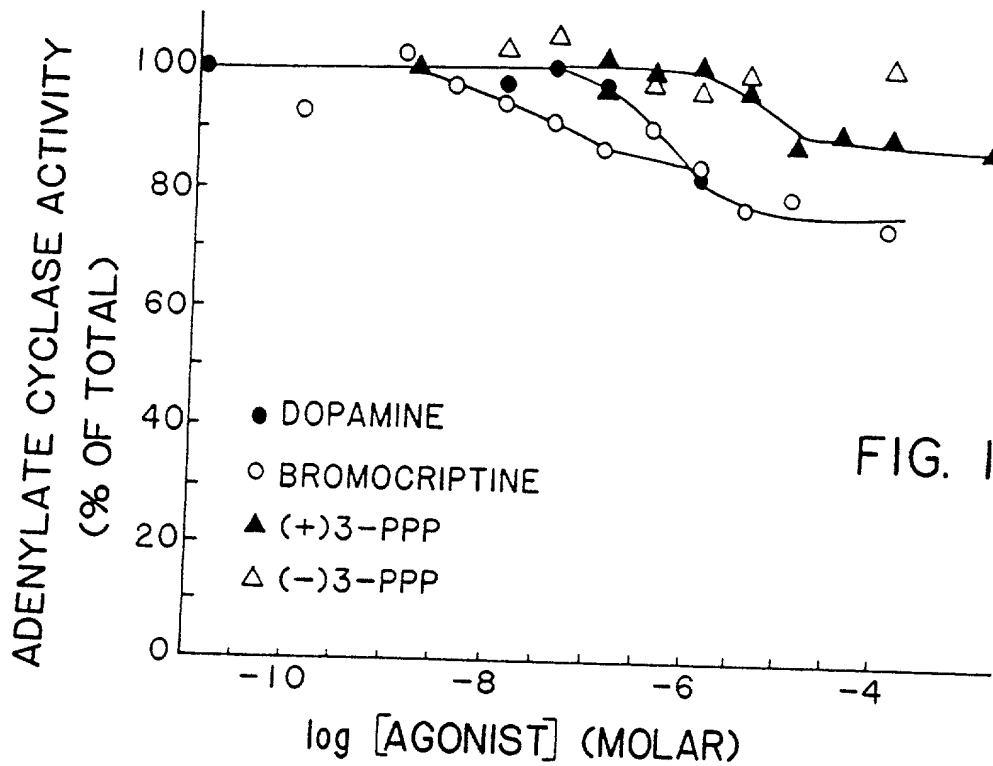


FIG. 10A

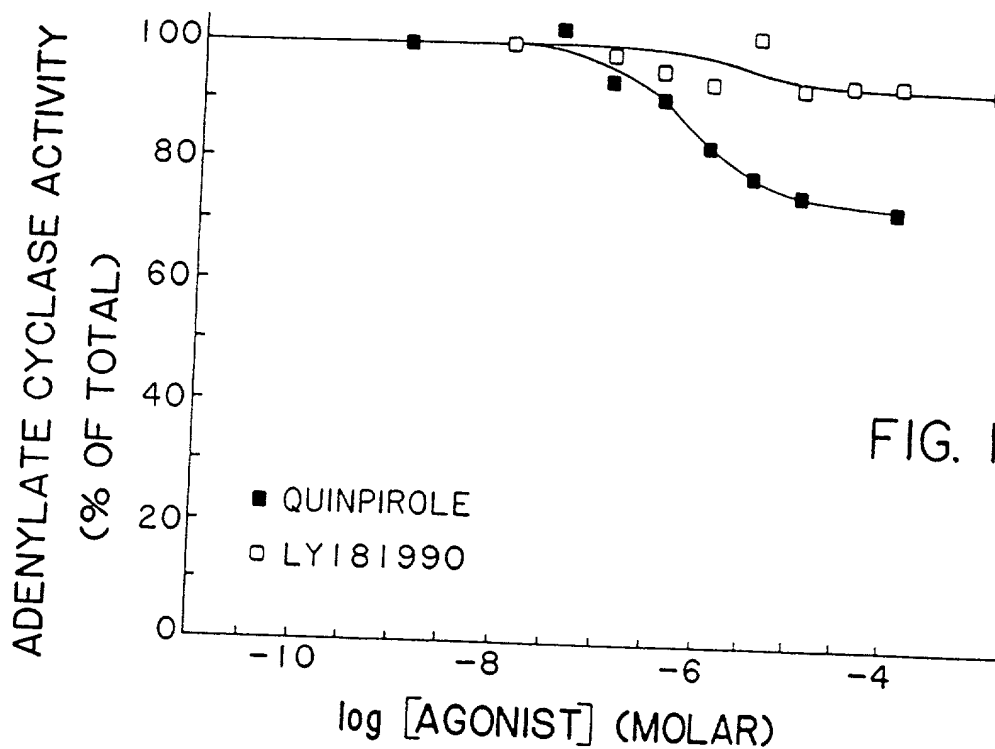


FIG. 10B

FIG. 12A

CONTROL				+P.T.			
BASAL	FSK	FSK+DA		BASAL	FSK	FSK+DA	
2.1	22.6	14.3		1.7	26.7	23.1	
0.2	2.2	2.1		0.4	2.0	0.5	
—	—	41%		—	—	14%	

FIG. 12B

CONTROL				+P.T.			
BASAL	VIP	DA	VIP+DA	BASAL	VIP	DA	VIP+DA
0.60	2.41	0.32	0.84	0.61	2.68	0.55	2.56
0.02	0.31	0.02	0.13	0.09	0.08	0.03	0.25
—	—	53%	71%	—	—	10%	3%

FIG. 12C

CONTROL				+P.T.			
BASAL	VIP	DA	VIP+DA	BASAL	VIP	DA	VIP+DA
0.78	5.1	0.25	0.76	0.64	5.29	0.66	4.76
0.04	0.4	0.03	0.01	0.01	0.44	0.03	0.16
—	—	68%	88%	—	—	0%	12%

FIG. 13B-1

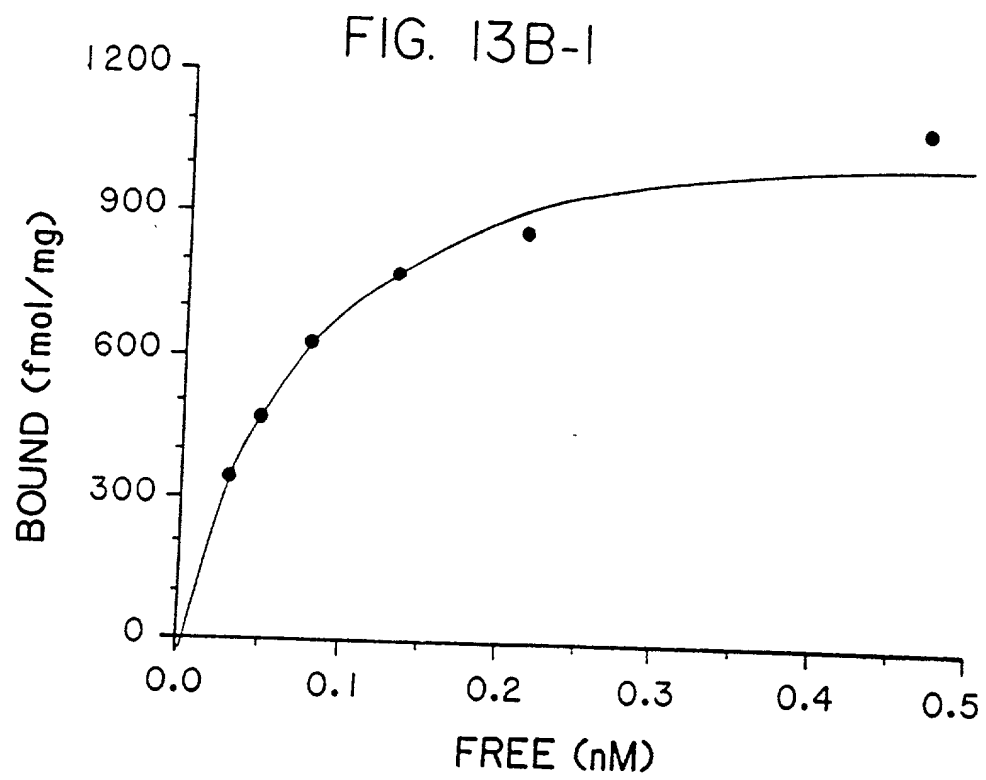


FIG. 13B-2

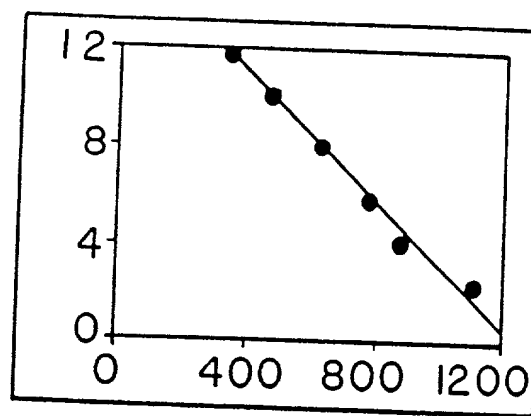


FIG. 13C

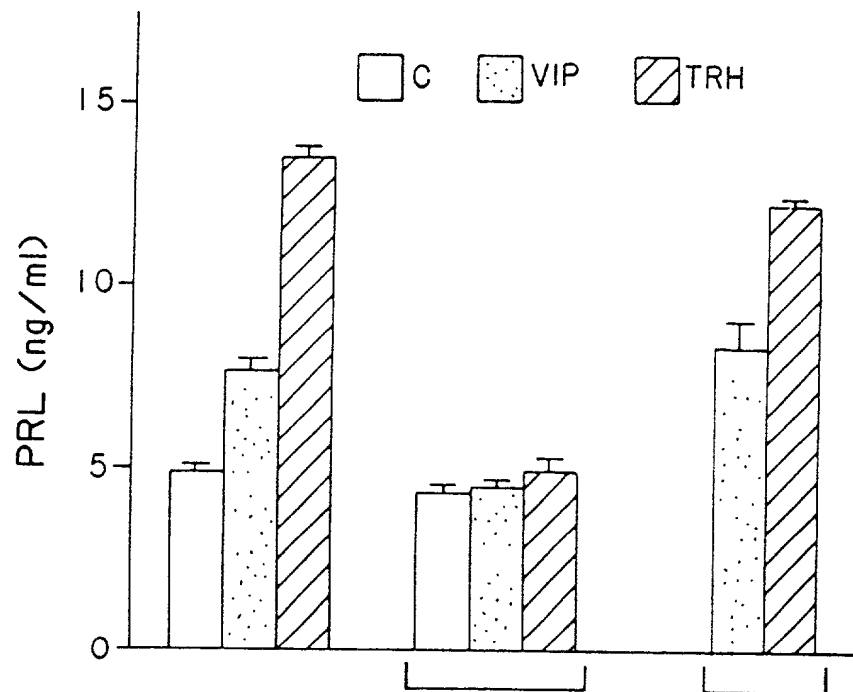
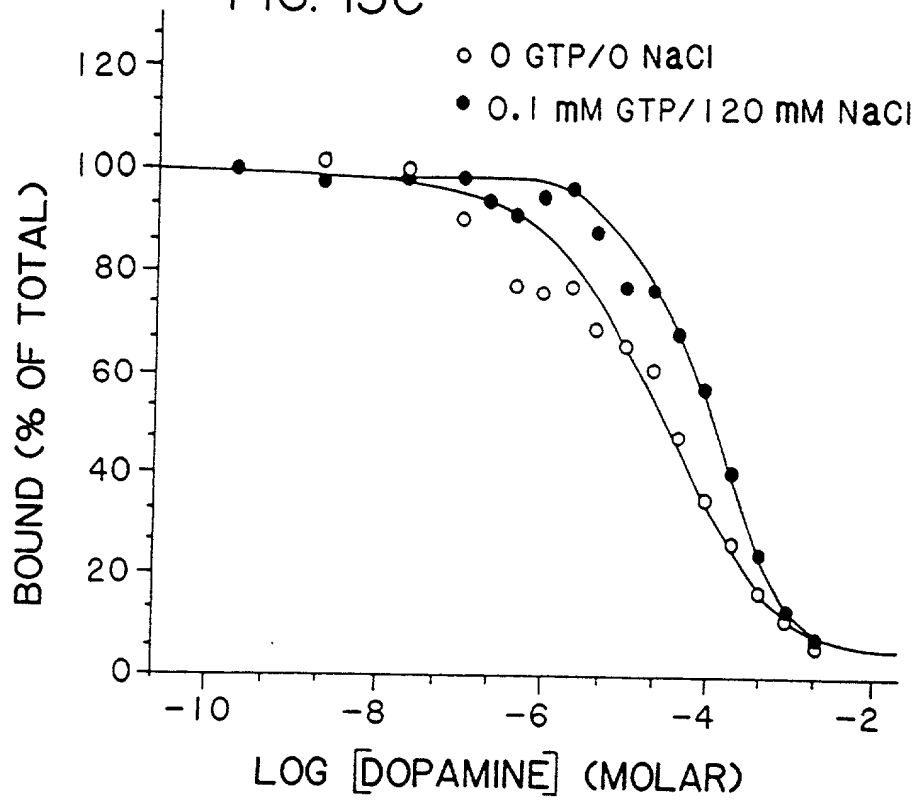


FIG. 14C

D

D(-S)

FIG.14A

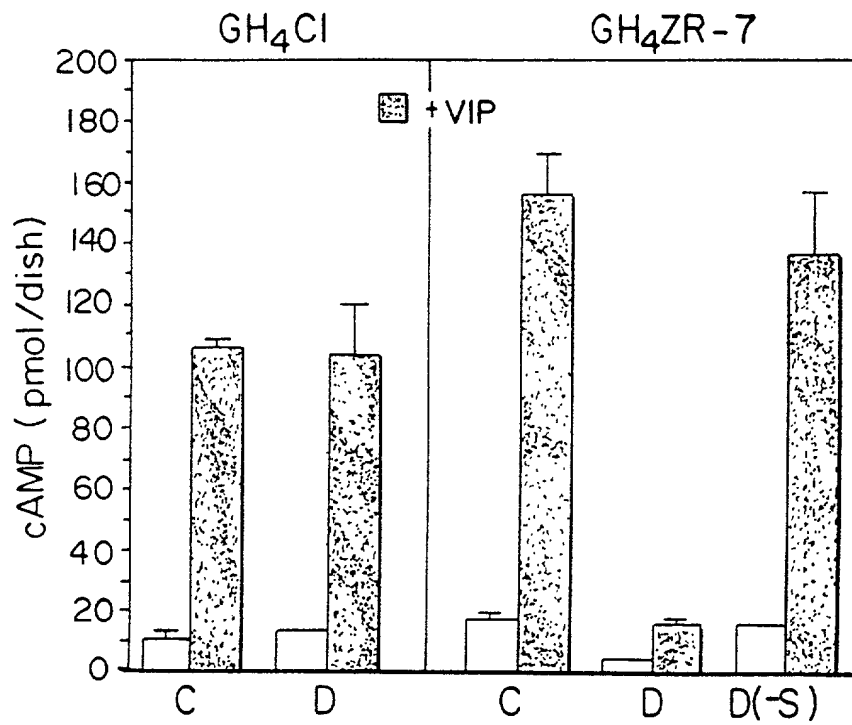
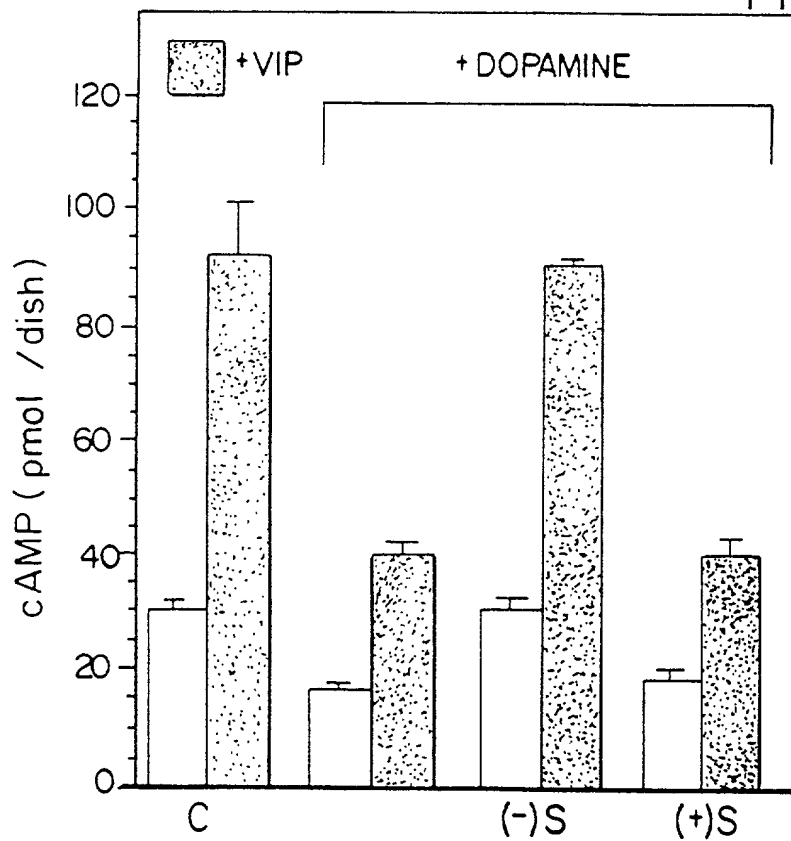
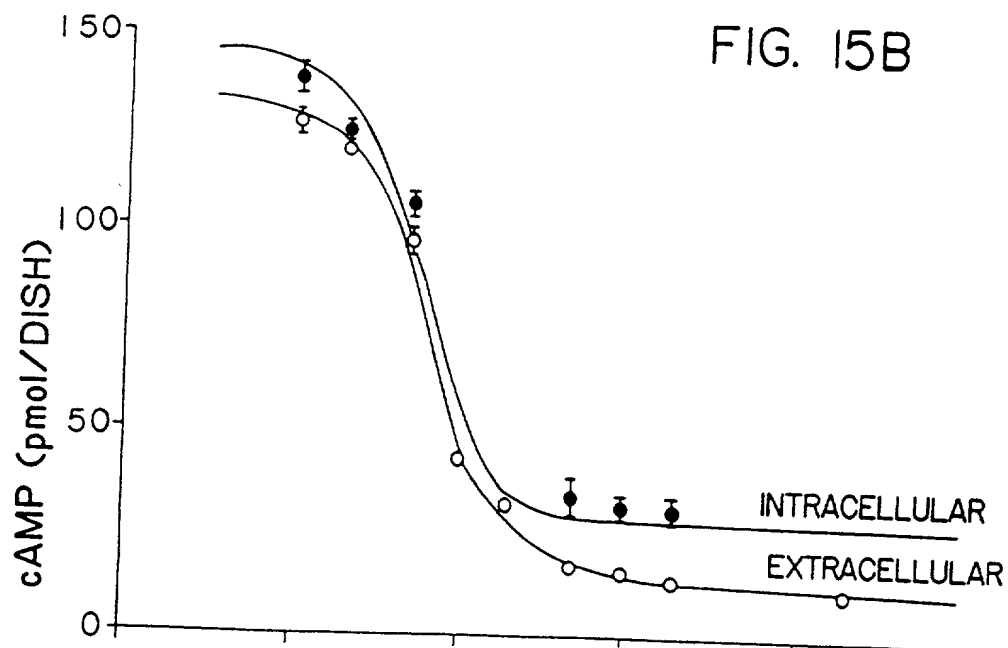
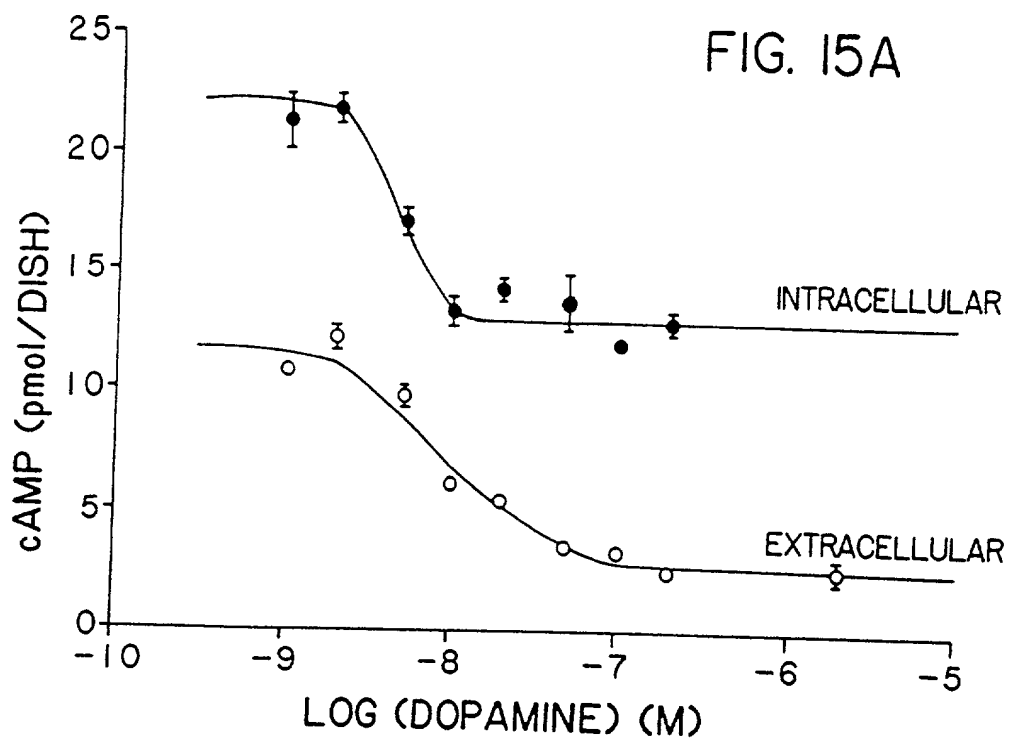


FIG.14B





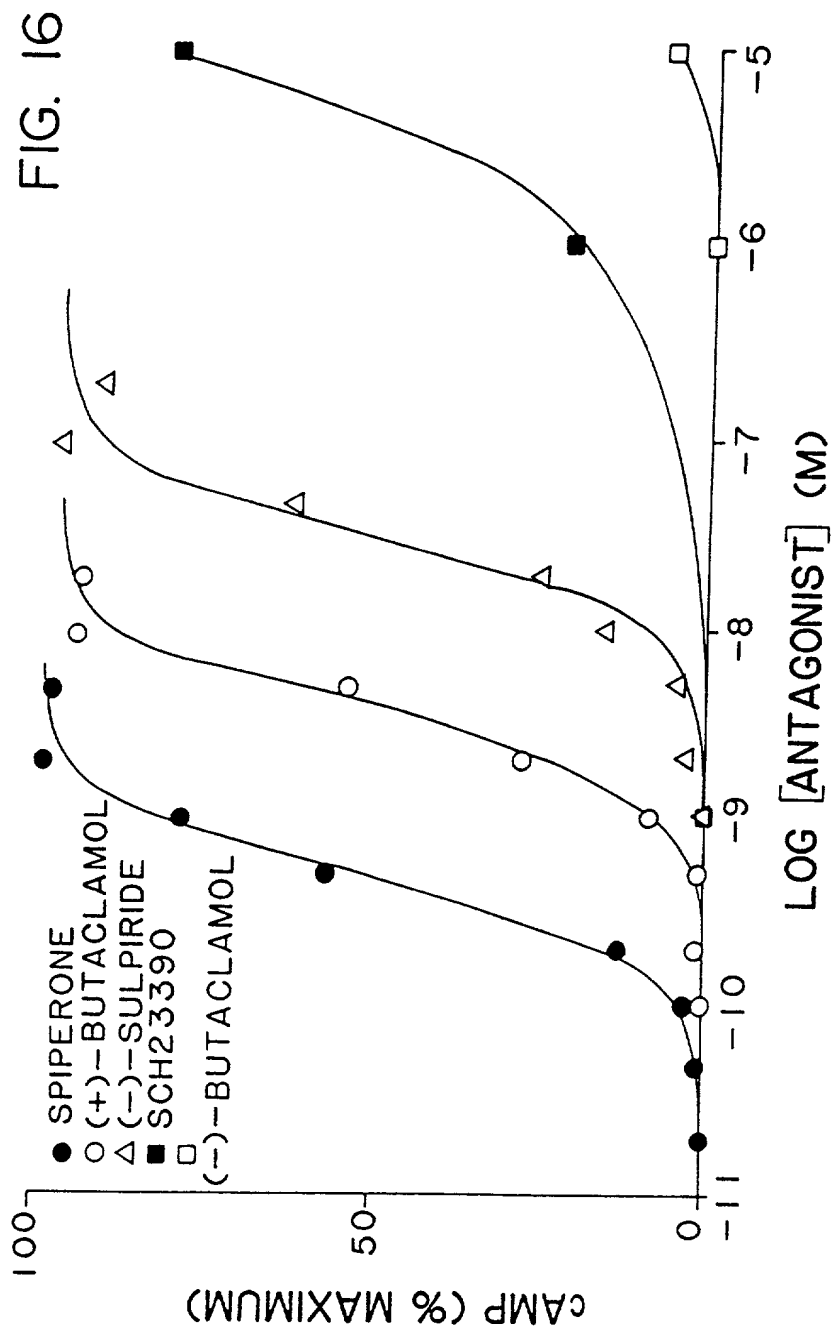


FIG.17A

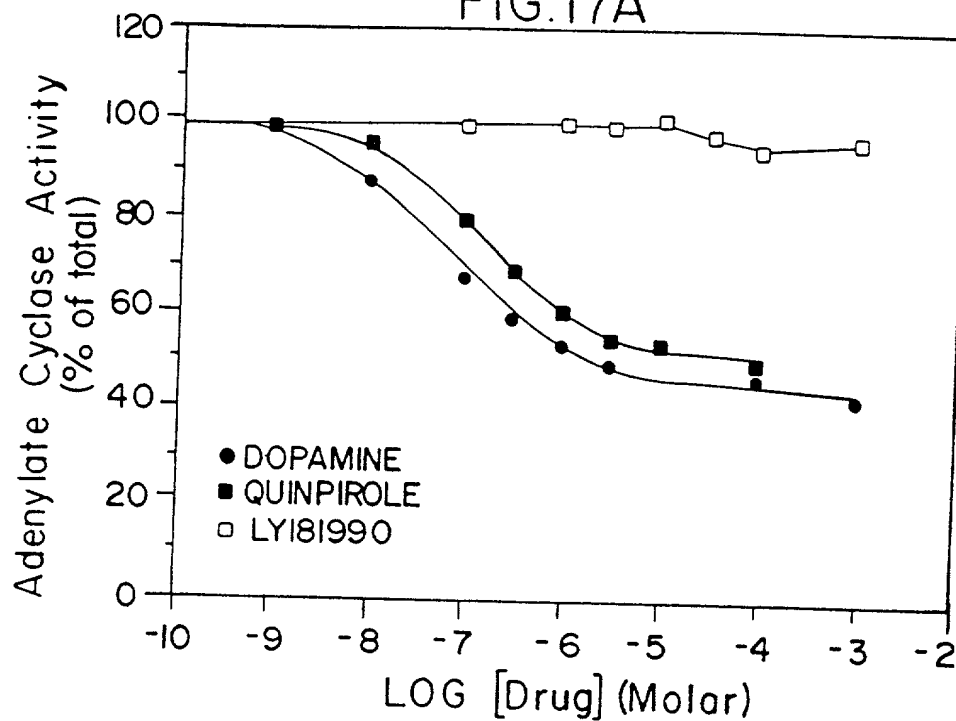
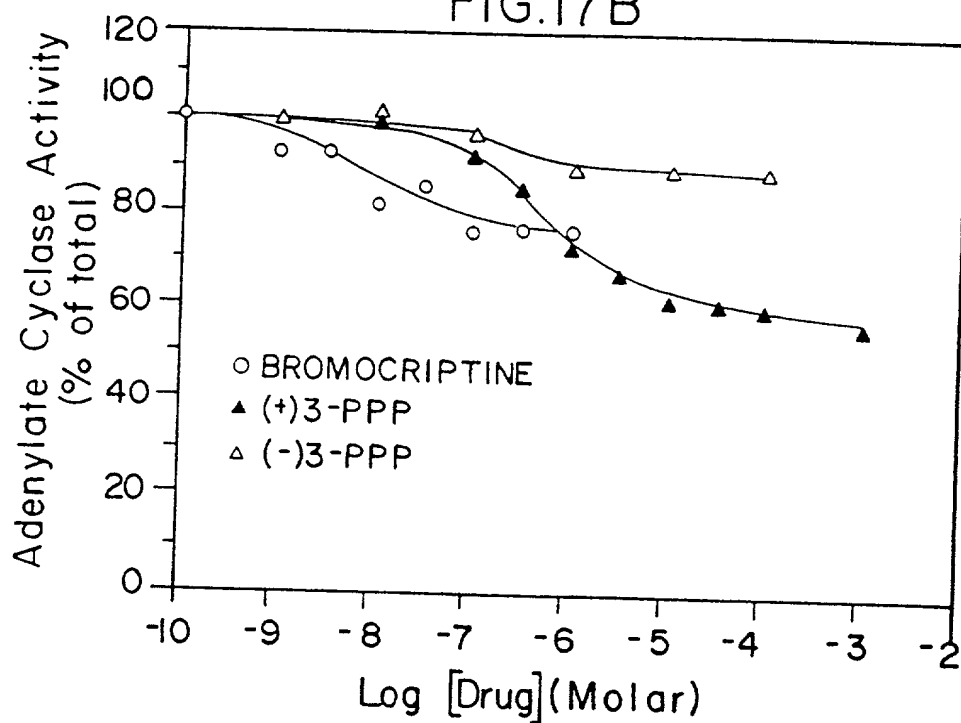


FIG.17B



-33 AGAGCCTGGCCACCCAGTGGCTCCACCGCCCTG

*

10

METAspProLeuAsnLeuSerTrpTyrAspAspLeuGluArgGlnAsnTrpSerArg
ATGGATCCACTGAATCTGTCCTGGTATGATGATCTGGAGAGGCAGAACTGGAGCCCG
|||||
ATGGATCCACTGAACCTGTCCTGGTACGATGACGATCTGGAGAGGCAGAACTGGAGCCCG

*

30

ProPheAsnGlySerAspGlyLysAlaAspArgProHisTyrAsnTyrTyrAlaThrLeu
CCCTTCAACGGGTCAGACGGGAAGCGGACAGACCCCACTACAACACTACTATGCCACACTG
|||||
CCCTTCAATGGGTCAGAAAGGAAGGCAGACAGGCCCACTACAACACTACTATGCCATGCTG
Glu
MET

120

FIG. 18A

1
 LeuThrLeuLeuIleAlaValIleValPheGlyAsnValLeuValCysMETAlaValSer 50 60
 CTCACCTGCTCATCGCTGTCAATCGTCTTCGGCAACGTCGCTGGTGTGCATGGCTGTGTCC
 IIIIIII IIIII IIIII IIIII IIIII IIIII IIIII IIIII IIIII IIIII
 CTCACCTCCTCATCTTTATCATCGTCTTTGGCAATGTGCTGGTGTGCATGGCTGTATCC
 PheIle
 ArgGluLysAlaLeuGlnThrThrThrAsnTyrLeuIleValSerLeuAlaValAlaAsp 70 80
 CGCGAGAAAGCGCTGCAGACCAACCACTACCTGATCGTCAGCCTCGCAGTGGCCGAC
 IIIIIII IIIII IIIII IIIII IIIII IIIII IIIII IIIII IIIII IIIII
 CGAGAGAAAGCCTTTCAGACCAACCACTACTTGATAGTCAGCCTTGCTGTGGCTGAT
 240
 LeuLeuValAlaThrLeuValMETProTrpValValTyrLeuGluValValGlyGluTrp 90 100
 CTCCTCGTCCACACTGGTCAATGCCCTGGGTTGTCTACCTGGAGGTGGTAGGTGAGTGG
 IIIII IIIII IIIII IIIII IIIII IIIII IIIII IIIII IIIII IIIII
 CTTCTGGTGGCCACACTGGTAATGCCGTGGGTTGTCTACCTGGAGGTGGTGGGTGAGTGG

FIG. 18B

600

600

Lys

LysArgValAsnThrLysArgSerArgAlaPheArgAlaHisLeuArgAlaProLeu	230	240
AAGCGAGTCAACACCAACGCGAGCCGAGCTTTCAGGGCCACCTGAGGGCTCCACTA		
		720
AAGCGGTCAACACCAAGCGCAGTCGAGCTTTCAGAGCCAAACCTGAAGACACCACTC		
Asn LysThr		
	250	*
LysGlyAsnCysThrHisProGluAspMETLysLeuCysThrValIleMETLysSerAsn		
▼ AAGGGCAACTGTACTCACCCCGAGGACATGAAACTCTGCACCGTTATCATGAAGTCTAAT		
!!!		
AAG.....		
GlySerPheProValAsnArgArgValGluAlaAlaArgAlaGlnGluLeuGlu	270	280
GGGAGTTTCCCACTGAACAGCGGAGAGTGGAGGCTGCCCGCGAGCCCCAGGAGCTGGAG		
.....GATGCTGCCCGCGAGCTCAGGAGCTGGAA		840
Asp		

METGluMETLeuSerSerThrSerProProGluArgThrArgTyrSerProIleProPro 290 300
 ATGGAGATGCTCTCCAGCACACGACCCACCCGAGAGGACCCGGTACAGCCCCATCCACCC
 IIIIIIIII II IIIIIIIII II IIIIIIIIIII IIIIIIIII III
 ATGGAGATGCTGTCAAGCACACGACCCCCAGAGAGGACCCGGTATAGCCCCCATCCCTCCC

 SerHisHisGlnLeuThrLeuProAspProSerHisHisGlyLeuHisSerThrProAsp 310 320
 AGCCACCAACGACTCTCCCCGACCCGTCCTCCACCATGCTCTCCACAGCACTCCCGAC
 II IIIIIIIII IIIIIII II II IIIIIII II II III IIII III
 AGTCACCAACGACTCACTCTCCCTGATCCATCCACCAACGGCCTACATAGCAACCTGAC 960
 Asn

 SerProAlaLysProGluLysAsnGlyHisAlaLys 330 339
 AGCCCCGCCAAACAGAGAAGAAATGGGCATGCCAAA...GACCACCCCAAGATTGCCAAG
 II II IIIIIIIIIIIIIIIIIIIII IIIII I I IIII IIIIIIIII
 AGTCCTGCCAAACAGAGAAGAAATGGGCACGCCCAAGATTGTCAATCCCAGGATTGCCAAG
 IleValAsn Arg

FIG. 18F

AspCysAsnIleProPro	409	<u>ValLeuTyrSerAlaPheThrTrpLeuGlyTyrValAsnSer</u>	Vll	419
GACTGCAACATCCCGCCTGTCCCTGTACAGCGCCTTCACGTGGCTGGGCTATGTCAACAGC				
ll llllllllll ll lllll llllllllllll lllllllllllllllllllllllllllll				
GATTGCAACATCCCAACAGTCTCTACAGCGCCTTCACATGGCTGGGCTATGTCAACAGT				
AlaValAsnProIleIleTyrThrThrPhe	429	<u>AsnIleGluPheArgLysAlaPheLeuLys</u>		439
GCCGTGAACCCCATCATCTACACCACTTCAACATTGAGTTCGCAAGGCCTTCCTGAAG				
lllll lllllllllllllllllllllllllllll lllllllllllllllllllllllllll				1317
GCCGTCAACCCCATCATCTACACCACTTCAACATCGAGTTCGCAAGGCCTTCATGAAG				
IleLeuHisCys *				MET
ATCCTCCACTGCTGACTCTGCTGCCCTGCCCGCACAGCAGCCTGCTTCCCACCTCCCTGCC				
lll l llllllllll				
ATCTTGCACTGCTGA				

FIG. 18H

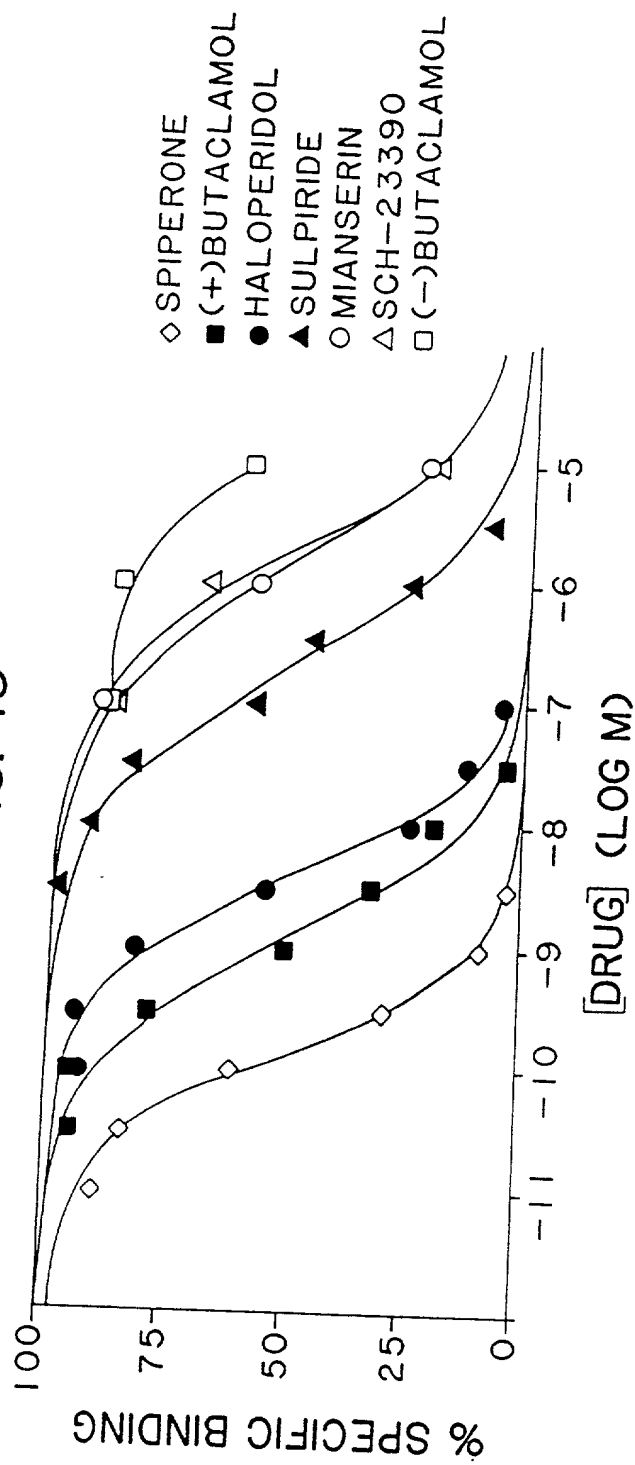
CAGGCCGGCCAGCCTCACCCCTTCCGAACCGTGAGCAGGAAGGCTGGGTGGATCGGCCCTC 1437
 CTCCTTAGCCCCGGCAGGCCCTGCAGTGTTCGCTTGGCTCCATGCTCCTCACTGCCCG
 CACACCCCTCACTCTGCCAGGGCAGTGCTAGTGAGCTGGGCATGGTACCAGCCCTGGGGCT 1557
 GGCCCCAGCTCAGGGGCAGCTCATAGATCCCCCTCCACCTCCAGTCCCCCTATCCTT
 GGCACCAAGATGCAGCCGCCTTCCTTGACCTTCCTCTGGGGCTCTAGGGTTGCTGGAGC 1677
 CTGAGTCAGGGCCAGAGGCTGAGTTTCTCTTTGTGGGGCTTGGCGTGGAGCAGCGCGT
 GGGGAGAGATGGACAGTTCACACCCCTGCAAGGCCCCACAGGAGGCAAGCAAGCTCTCTGC 1797
 CGAGGAGCCAGGCAACTTCAGTCCCTGGGAGACCCCATGTAAATACCAGACTGCAGGTGGA
 CCCCAAGGATTCCCAAGCCAAACCTTAGCTCCCTCCCGCACCCCGATGTGGACCTCTA 1917

FIG. 18I

CTTCCAGGCTAGTCCGGACCCACCTCACCCCGTTACAGCTCCCCAAGTGGTTTCCACAT
GCTCTGAGAAGAGGCCCTCATCTTGAAGGGCCAGGAGGTCTATGGGGAGAGGAACT 2037
CCTGGCCTAGCCCACCCCTGCTGCCTTCTGACGGCCCTGCAATGTATCCCTTCTCACAGC
ACATGCTGGCCAGCCTGGGGCCTGGCAGGGAGGTACAGGCCCTGGAACTCTATCTGGGCCT 2157
GGGCTAGGACATCAGAGGTTCTTTGAGGGACTGCCTCTGCCACACTCTGACGCAAAACC
ACTTCCCTTTCTATTCCCTTCTGGCCTTTCCCTCTCTCCTGTTCCTTCCCTTCCACTGC 2277
CTCTGCCCTTAGAGGAGCCACGGCTAAGAGGCTGCTGAAACCATCTGGCCTGGCCTGGC
CCTGCCCTGAGGAAGGAGGGCAAGCTGCAGCTTGGGAGAGCCCTGGGGCCTAGACTCTG 2397
TAACATCACTATCCGATGCACCAAACTAATAAAAACTTTGACGAGTCACCTTC (A)_n 2449

FIG. 18J

FIG. 19



1 2 3 4

kb

—12.0

— 6.0

— 4.0

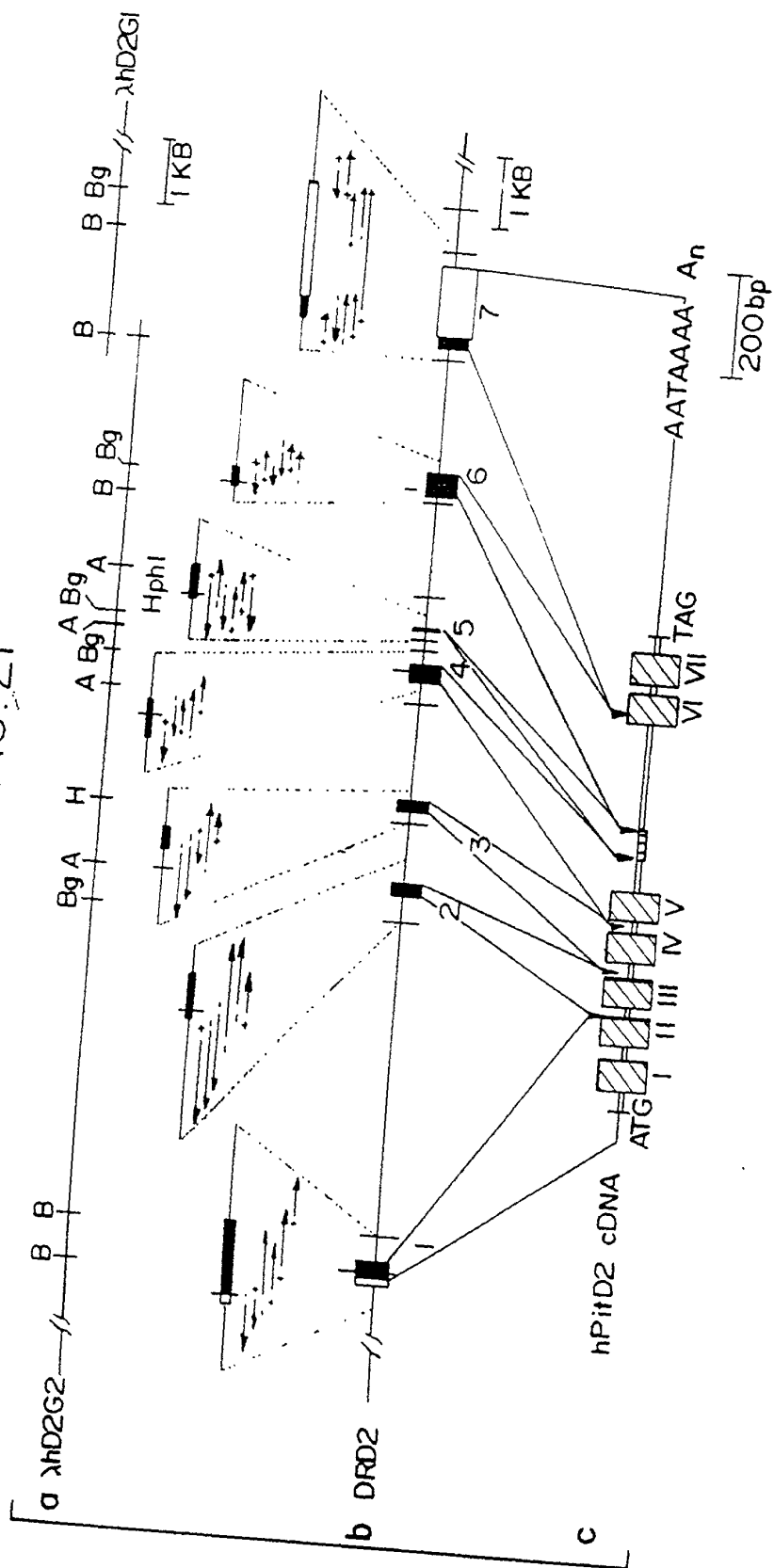
— 2.0

— 1.6

— 1.0

FIG. 20

FIG. 21



DRUG	HUMAN D ₂	RAT D ₂	RAT STRIATUM
SPIPERONE	0.125	0.35	0.56
(+)BUTACLAMOL	0.94	1.2	1.6
HALOPERIDOL	2.4	5.1	5.8
SULPIRIDE	206	160	205
MIANSERIN (5-HT)	2685	4300	4600
SCH 23390 (D1)	2145	2500	3300
(+)BUTACLAMOL	>10,000	>10,000	>10,000
Kd [³ H] DOMPERIDONE	0.74	0.40	0.40

FIG. 22